



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,613	12/05/2001	Paul H. Kaye	17893.006	1920

28381 7590 03/24/2005

ARNOLD & PORTER LLP
ATTN: IP DOCKETING DEPT.
555 TWELFTH STREET, N.W.
WASHINGTON, DC 20004-1206

EXAMINER

LABAZE, EDWYN

ART UNIT	PAPER NUMBER
----------	--------------

2876

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,613

Applicant(s)

KAYE ET AL.

Examiner

EDWYN LABAZE

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66-96 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12162004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of amendments filed on 12/16/2004.
2. Receipt is acknowledged of IDS filed on 12/16/2004.
3. Claims 66-96 are presented for examination.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 66-86, and 95-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. 5,350,715) in view Fujiwara et al. (U.S. 5,238,810).

Re claim 66-67, 71-73, 76-86, 95-96: Lee teaches chip identification scheme, which includes a microparticle or micro-label (as shown in fig.# 1A) in the form of a wafer, wherein the microparticle is marked with digitally-coded machine-readable information (as shown in fig. # 1B, 2B, and 3B), the machine-readable information being etched through the microparticle as a pattern of holes (col.3, lines 15-35; col.4, lines 55-62).

Lee fails to disclose a thickness of 0.1 to 5.0 micrometers, a width of 0.5 to 50 micrometers and length of 0.5 to 50 micrometers. Lee does not further disclose the chemical compounds during the fabrication of the microparticle, wherein the microparticle comprising silicon dioxide or metal [aluminum], a powder or fluid or gas mixed with one or more sets of microparticles and a container for dispensing the microparticle.

Fujiwara et al. discloses laser magnetic immunoassay method and apparatus thereof, which includes means of making a microparticle of an average size of 0.5 micron (as shown in fig. # 18 col.37, lines 55+). Fujiwara et al. further teaches that the microparticle comprises of silicon dioxide (col.46, lines 60+) or metal [such aluminum] (col.34, lines 1+). Fujiwara et al. teaches fabrication of the compound, wherein the compound comprises a powder or fluid or gas [herein disclosed as phenol-formaldehyde resin] mixed with one or more sets of microparticles and a container 604 for dispensing the microparticle (as shown in figs. # 40-41; col.58, lines 25+).

In view of Fujiwara et al.'s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further modify the teachings of Lee with extra small particles including the specific range(s) of 0.1 to 5.0 micrometers, a width of 0.5 to 50 micrometers and length of 0.5 to 50 micrometers in order to implement non-visible indicia/barcode that cannot be interpreted with a naked eye. Further such modification would provide an increase security for marking/tagging products with an extra small/miniature items having a non-visible machine-readable code. Furthermore, since it has been held that the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Re Claim 68: Lee teaches a system and method, in which the microparticle is fabricated by a micro-machining method that includes deposition, masking [using photomasking or photolithographic process] and etching steps (col.3, lines 15+).

Re Claim 69: Lee discloses a system and method, wherein the machine-readable information is in the form of a binary code (col.4, lines 5+).

Re Claim 70: Lee teaches a system and method, wherein the microparticle incorporates an orientation [herein referred as a position reference point] marker (col.4, lines 10+).

Re Claim 74: Lee discloses a system and method, whose machine-readable code is readable by an optical device (col.4, lines 1-8).

Re claim 75: Lee teaches a system and method, in which the code is representative data comprising a multiplicity of bits (col.2, lines 60+).

7. Claims 87-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. 5,350,715) as modified by Fujiwara et al. (U.S. 5,238,810) above in claim 66, and further in view of LaPerre et al. (U.S. 4,329,393).

The teachings of Lee as modified by Fujiwara et al. have been discussed above.

Lee as modified by Fujiwara et al. fails to teach means of utilizing the microparticle label/tag for marking a vehicle, or jewelry, credit cards, or valuable items, a coating compound, and means of adhering the microparticle using a transparent lacquer.

LaPerre et al. discloses coating compositions for retrospective identification of articles, which includes a coating composition for securely attach [using a clear lacquer] microparticle tag/label to the surface of an article or solid object (col.1, lines 40-67; col.2, lines 20+; col.6, lines 53-65).

Art Unit: 2876

In view of LaPerre et al.'s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further modify the teachings of Lee in view of Fujiwara et al. so as to employ a coating composition for securely attach microparticle label/tag for marking a vehicle, or jewelry, credit cards, or valuable items. Furthermore, such modification would greatly improve the security of the tagged items without any instant notification of the microparticle tag due the size (0.1 – 5.0 microns) of the tag, which renders the tag invisible to the naked eye. Moreover, such modification would have been an obvious extension as taught by Lee as modified by Fujiwara et al.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bawendi et al. (6,617,583) discloses inventory control.

Ravkin et al. (US 2003/0059764) teaches multiplexed cell analysis system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (571) 272-2395.

The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

el
Edwyn Labaze
Patent Examiner
Art Unit 2876
March 17, 2005



KARL D. FRECH
PRIMARY EXAMINER